

Work Order ID 71951

Thursday, July 14, 2011 10:14:40 AM



Page 1

Item ID: D3562-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Step Assembly, LH

Start Date: 7/14/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 7/22/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan:

Date: 11-07-14

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3562

Rev E

100

0.00



Large Fab

Large Fab

Memo

0.00

Large Fab

1-Cut D2622 extrusion as per Dwg D3562
2-Deburr and bevel ends for welding

11.07.19.

4 0

110

0.00



QC6- Inspect dimensions to drawing

QC

Memo

0.00

Quality Control

11 07 19 (4)

120

0.00



Chemical Conversion Coat per QSI005 4.1

HandFinish

Memo

0.00

Hand Finishing

11.07.19.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
11/8								

NOTE: Date & initial all entries

Thursday, July 14, 2011 10:14:40 AM

Page 2

Accept

Setup Start

Stop

Cust Item ID:

Customer:

Reference:

Run Start

Stop

130

QC3- Inspect Part Finish

0.00

[illegible]

QC

Memo

0.00

Quality Control

140

Small Fab

0.00

1. The first group of variables includes the demographic characteristics of the respondents, such as age, gender, and education level. These variables are used to control for potential confounding factors that may influence the dependent variable.

2. The second group of variables represents the independent variables, which are the factors hypothesized to have a direct effect on the dependent variable. These variables are measured using a Likert scale, where respondents indicate their level of agreement or disagreement with the statements.

3. The third group of variables consists of the control variables, which are used to account for other factors that may influence the dependent variable but are not the primary focus of the study. These variables are also measured using a Likert scale.

4. The final group of variables includes the dependent variable, which is the outcome variable that the study aims to explain. This variable is measured using a continuous scale, where higher values indicate a higher level of the outcome.

Small Fab

Memo

0.00

Small Fab

1- Transfer drill Rivet holes as per dwg D3562.
2-Touch-up rivet holes with alodine as per dwg d3562
3-Rivet legs using Magnabond as per dwg D3562.
*****Ensure to wipe off any excess magnabond *****
A/R Magnabond 6398 Batch: 117870
117870

150

QC5- Inspect part completeness to step on W/O

0.00

[illegible]

OC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 71951

Thursday, July 14, 2011 10:14:40 AM



Page 3

Item ID: D3562-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Step Assembly, LH

Start Date: 7/14/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 7/22/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 Large Fab	Large Fab	0.00							
Large Fab	Memo 1-Weld end caps as per Dwg d3562 & QSI 004. Inspect for foreign objects as per QSI 024. A/RAluminum Rod <i>M114703</i> 2-Grind end cap welds flush as per Dwg D3562	0.00				<i>4</i>	<i>0</i>		
170 QC	QC10- Inspect visual per QSI004- ground welds	0.00							
Quality Control	Memo <i>8 ulos/23</i>	0.00				<i>4</i>	<i>0</i>		
180 QC	QC5- Inspect part completeness to step on W/O	0.00							
Quality Control	Memo <i>8 ulos/27</i>	0.00				<i>44</i> <i>LH</i>			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 71951

Thursday, July 14, 2011 10:14:40 AM



Page 4

Item ID: D3562-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Step Assembly, LH

Start Date: 7/14/2011 Start Qty: 4.00



Cust Item ID:

Required Date: 7/22/2011 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

190

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

4X Ø M/L 11/08/24

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

1210
5-20 OF
1240

4X Ø M/L 11/08/25

210

Wing Walk as per dwg QSI005 4.4 Batch

0.00



HandFinish

Memo

0.00

Hand Finishing

M118313

4X Ø M/L 11/08/25

M117745

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			






NOTE: Date & initial all entries



Work Order ID 71951


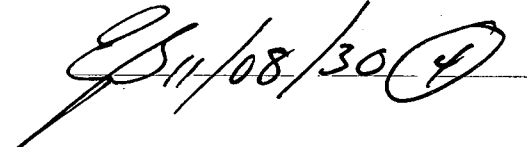



Thursday, July 14, 2011 10:14:40 AM



Page 5

Item ID: D3562-041 Accept  Setup Start 
Revision ID:
Item Name: Step Assembly, LH Stop 
Start Date: 7/14/2011 Start Qty: 4.00  Cust Item ID:
Required Date: 7/22/2011 Req'd Qty: 4.00  Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start 
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220  QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00							
230  Packaging Packaging	Identify as per dwg & Stock Location: <u>G-A</u> Memo <u>w/o</u> <u>71953</u>	0.00 0.00							
240  QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							<u>11/18/30</u> <u>MF</u> <u>11-08-30</u>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, July 14, 2011 10:14:49 AM

Page 1

Work Order ID: 71951

Parent Item: D3562-041

Parent Item Name: Step Assembly, LH



Start Date: 7/14/2011

Required Date: 7/22/2011

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 06-11-09 JLM
 IPP rev B ECN 987 07.10.09 EC verified by: DD
 IPP Rev:C ECN1048 07-12-18 DD verified by:ec
 IPP Rev:D 08-07-28 add chemical conversion coat DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2622-120C

Manufactured

No

100

Each

121.7000

1

4



Step Extrusion



11-08-19

Location

Loc Qty

Loc Code

HALL

112

64409

6

68293

106

WA

9.7

46910

2

66970

7.7

4

D2734

Manufactured

No

140

Each

67.0000

2

8



Step End Plate



11-08-19

Location

Loc Qty

Loc Code

WA

67

69537

4

70701

63

8

D3560-041

Manufactured

No

140

Each

1.0000

1

4



Arm Weldment



11-08-18

Location

Loc Qty

Loc Code

WA

1

69615

1

3

D3560-043

Manufactured

No

140

Each

0.0000

1

4



Arm Weldment



11-08-18 371949 (4)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, July 14, 2011 10:14:49 AM

Page 2

Work Order ID: 71951



Parent Item: D3562-041



Parent Item Name: Step Assembly, LH

Start Date: 7/14/2011

Required Date: 7/22/2011

Start Qty: 4.00

Required Qty: 4.00

MS20600-AD4W5

Purchased

No

160

Each

495.0000

32

128



11-08-22

Blind Rivet

Location

Loc Qty

Loc Code

ST321

118384

489

114382

173

117505

200

117739

72

117885

44

WA018

6

111477

6

128

Thursday, July 14, 2011 10:14:49 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

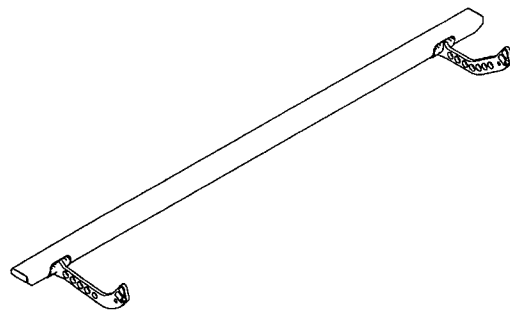
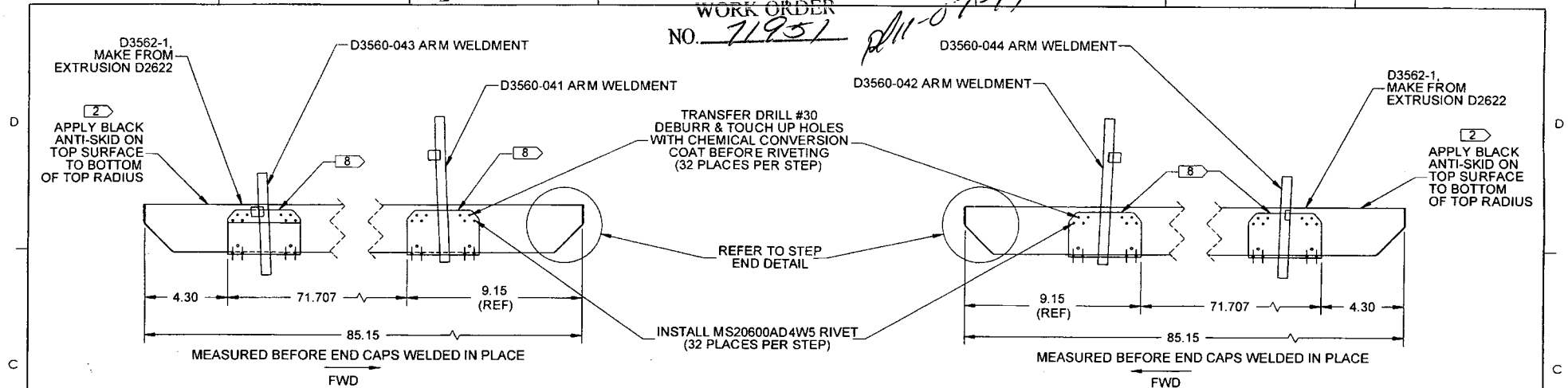
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

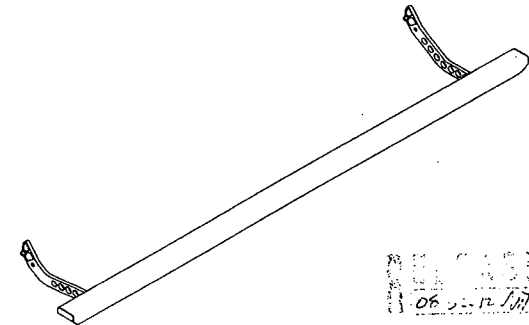
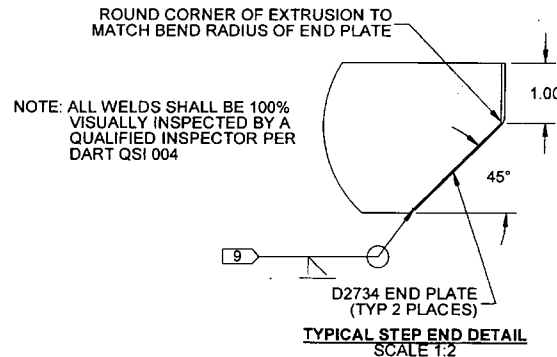
NOTE: Date & initial all entries

SHIP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT

WITHOUT NOTICE
WORK ORDER
NO. 71951 *11-07-14*



D3562-041 LH STEP ASSEMBLY



D3562-042 RH STEP ASSEMBLY

- NOTES:**
1) MATERIAL: N/A
2) FINISH:
i) CHEMICAL CONVERSION COAT STEP EXTRUSION PER DART QSI 005 4.1 BEFORE ASSEMBLY
ii) POWDER COAT ASSEMBLY GLOSS WHITE (4.3.5.1) OR GREY SANDTEX (4.3.5.6) OR BLACK SANDTEX (4.3.5.7) OR GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3
iii) BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 8.79 lbs
8) INSTALL ARM WELDMENTS WITH A LAYER OF MAGNOBOND 6398 BETWEEN THE ARM WELDMENT AND STEP EXTRUSION. FILL ANY TOOLING HOLES WITH MAGNOBOND 6398. CLEAN OFF EXCESS BEFORE POWDER COATING.
9) WELDING: PER DART QSI 004

QTY -041	QTY -042	P/N	DESCRIPTION
X		D3562-041	LH STEP ASSEMBLY
	X	D3562-042	RH STEP ASSEMBLY
1		D3560-041	ARM WELDMENT
	1	D3560-042	ARM WELDMENT
1		D3560-043	ARM WELDMENT
	1	D3560-044	ARM WELDMENT
32	32	MS20600AD4W5	RIVET
2	2	D2734	END PLATE

E	ADD QTY (2) TO D2734 END PLATE ON D3562-042	PH	08.01.11
D	REMOVE D2808 SPACER NOTE, REDRAWN IN SOLIDWORKS	DC	07.11.16
C	NOW MAGNOBOND, ADD D2808, REMOVE 4 RIVETS	CP	07.06.19
B	ARMS NOW RIVETED TO STEP	CP	07.01.15
A	NEW ISSUE	CP	06.09.26
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>gp</i>		
DRAWN	<i>gt</i>		
CHECKED	<i>IE</i>		
MFG. APPR.	<i>DM</i>		
APPROVED	<i>DM</i>		
DE APPR.	<i>DM</i>		
DATE	08.01.11		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
DRAWING NO. **D3562**
TITLE **STEP ASSEMBLY**
REV. E
SHEET 1 OF 1
SCALE 1:5
COPYRIGHT © 2006 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries